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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,642	06/25/2003	Masayoshi Shimizu	826.1549C	1036

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EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 08/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,642

Applicant(s)

SHIMIZU ET AL.

Examiner

Madeleine AV Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ✓ 1) ☒ Notice of References Cited (PTO-892)
✓ 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
✓ 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/24/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This communication is responsive to amendment filed on March 14, 2005.

Applicant amends claims 1-5 and adds new claims 6-7.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes (US Patent No. 5,611,030).

Concerning claim 4, Stokes discloses a color data conversion apparatus for converting color data to color data inside a target color gamut comprising a computer determining whether color data is in a predetermined area in the vicinity of the target color gamut (comparison between the color name associated with the out-of gamut color and the color name associated with the first-in-gamut color); and converting the color data to be converted using a first color gamut mapping method when the color data is within the predetermined area of the target color gamut (yes for same name in Fig.3) and using a second color gamut mapping method when the color data is outside the predetermined area of the target color gamut (no for "same name" in Fig.3).

It is noted that the predetermined area in a vicinity of the target color gamut is the predetermined area where the color name of an out-of-gamut color A to be mapped is the same of the color name of the in-gamut color A'. If A and A' are the same that means the color data A' is within the predetermined area of the target color gamut having the color name A. If A and A' are different that means the color data A' is outside the predetermined area of the target color gamut having the color name A.

Stokes does not specifically mention first and second color gamut conversion methods, but Stokes teaches two different ways of color gamut conversion using different conversion methods. The first way is to map the out-of-gamut color name A to an in-gamut color A' using any conventional clipping method. The second way is to use a modified conversion method. It would have been obvious to one skilled in the art at the time the invention was made to consider Stokes uses a first color gamut conversion method when the color data A' is within the same color name with color data A (within the predetermined area of the target color gamut) and uses a second color gamut conversion method when the color data A' has a different color name with the color data A (outside the predetermined area of the target color gamut) since Stokes uses different color gamut conversion method for each case.

Claim 1 is method claim of apparatus claim 4, claim 1 is rejected for the same rationales set forth for claim 4 above.

Concerning claim 2, Stokes discloses a color conversion table for converting colors exhibited by a first device (source device) which can be exhibited by a second device (destination device), wherein color data values which are registered in the color conversion table are generated using a color data conversion method as discussed in claims 1, 4 above.

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Concerning claim 3, Stokes teaches a device driver of a second device (destination device) for outputting colors exhibited by a first device (source device) as colors which can be exhibited by the second device (destination device) comprising a color conversion table as discussed in claim 2 above.

Concerning claim 5, Stokes discloses a computer-readable storage recording a program (interactive software), (col. 4, lines 25-35), for causing a computer to execute a process comprising the steps as discussed in claim 2 above.

Concerning claim 6, Stokes discloses a method comprising obtaining color data; and converting the color data using a first color gamut conversion method when the color data is in predetermined area defined outside the target color gamut (out-of gamut) and using a second color gamut conversion method when the color data is outside the predetermined area (color data A and A' have different color name) as discussed in claims 2, 4 above.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes as applied to claim 6 above, and further in view of Dillinger (US Patent No. 6,128,022) and MacDonald & Morovic (Survey of Gamut Mapping Papers).

Concerning claim 7, Stokes fails to teach that the first color gamut conversion method comprises a nearest boundary point method and the second color gamut conversion method comprises a chord clipping method. However, the nearest boundary point method and the chord clipping method are known for gamut clipping. Dillinger teaches the well known in the prior art of the nearest boundary point method as surface scaling (col. 6, line 46 – col. 8, line 32) while MacDonald & Morovic teaches the well known in the prior art of the chord clipping method

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(Fig. 1b) for gamut mapping. It would have been obvious to one skilled in the art at the time the invention was made to combine the well known prior art teaching of the nearest boundary point method in Dillinger and the chord clipping method in MacDonald & Morovic as the color gamut conversion methods in Stokes since for the first color gamut conversion method, Stokes teaches any conventional clipping method or other mapping methods can be used while for the second method is used by minimize a color distance ΔE^* between the out-of gamut color and the first in-gamut color which is closed to the chord clipping method.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Wan et al (US Patent No. 5,731,818) discloses a method and apparatus for constrained gamut clipping for mapping the data point to the closest point in a portion of the gamut surface specified by a search range.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

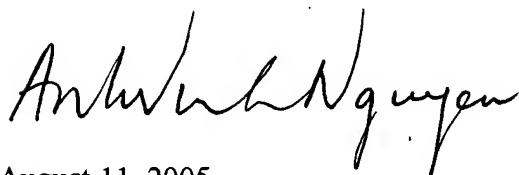
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Monday, Tuesday, Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



August 11, 2005

Madeleine AV Nguyen
Primary Examiner
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